

Summary of Nightjar Surveys at Green Ridge State Forest 2006-2013

Nightjars (Whip-poor-wills and Common Nighthawks) were surveyed during the breeding season in 2006 as part of a project by northeastern states to develop a standardized protocol to effectively survey these species (and Chuck-wills-widow, not relevant for this location). A survey protocol was established and, starting in 2007, this protocol was used to survey for these species. This protocol was adopted as a national model and a site was established for entry of U.S.-wide nightjar data in 2008 (Nightjar Survey Network, www.Nightjars.org).

The finalized survey protocol involves noting the pattern of calling over a 6-minute period for each nightjar detected at a point. The direction of the calling bird from the sample point (some surveys), weather conditions, number of cars passing, and presence of noise are also noted. Ten points are surveyed, with each located 1 mile from the last point. Surveys take place during the breeding season (late May to early June) at least 15 minutes after sunset and no later than 15 minutes before sunrise. Surveys are only conducted when the face of the moon is at least 50% illuminated and when the moon is above the horizon, making use of a study by Wilson and Watts (2006) that demonstrates the conditions under which Whip-poor-will detection is most likely. Surveys are not conducted under overcast conditions or when wind speed is above about 8 mph.

On June 8, 2006, two routes of 10 points each with points 0.5 miles apart were completed and over 30 Whip-poor-wills were heard. The raw counts of Whip-poor-wills at each point in each year for the finalized survey methodology (points 1 mile apart on a repeated route) are summarized in the table below. The count route starts at the intersection of Green Ridge and Fifteen Mile Creek Rd., proceeds south on Green Ridge Rd. to Wallizer Rd., continuing to Mertens Ave., and then along Jacobs Rd., ending just beyond campsite #49. Surveys in 2008, 2009, and 2010 had two observers. Observer 1 identifies the same person for all counts (Gwen Brewer). Observer 2 was George Jett in 2008 and 2010, and observer 2 was Mark Beals in 2009. Standardized surveys were carried out on the following dates and times: June 7, 2007 3:50-5:30 am; June 19, 2008 10:40pm-12:30 am; June 15, 2009 3:18-5:08 am; May 25, 2010 8:51-11:08 pm; May 30, 2013 3:35-5:24 am. These are some of the highest counts for Whip-poor-wills in Maryland and in the northeastern U.S.

Point	2007	2008		2009		2010		2013
Observer	1	1	2	1	2	1	2	1
1	0	0	0	0	0	0	0	3
2	1	1	1	1	1	3	3	3
3	2	1	1	3	4	3	2	2
4	4	2	2	3	2	3	2	3
5	3	2	1	2	2	2	2	3
6	0	2	3	3	4	2	2	3
7	2	4	4	2	1	0	0	2
8	1	1	1	5	4	4	3	3
9	0	2	2	5	4	3	2	3
10	2	2	2	4	3	4	3	3
TOTAL	15	17	17	28	25	24	19	28

Other species noted during the surveys were Barred Owls (2007, 2008, 2009, 2013), Eastern Screech-Owl (2009, 2010), Yellow-billed Cuckoo (2008, 2009), and Black-billed Cuckoo (2010).